

### Management of Traffic Accidents in Shanghai City

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China has 2.2% of the number of motor driven in the world, but automobile accidents in China comprise 9% of the automobile accidents in the world. Currently, 86,000 deaths result from traffic accidents annually. Shanghai is one of the largest cities of the world with a population of 13,000,000 inhabitants. The average density of population is >1,000 persons per km<sup>2</sup>, and that in the central part of the city, it is >10,000 persons per km<sup>2</sup>. Currently, more than 2,000,000 people move through Shanghai daily. The total number of passengers using buses during 1995 was over 5,500 million.

Statistics of the past five years indicate that the number of traffic accidents exceeded the past records by 60,000 cases with two persons killed daily (in the whole of China, 1 person is killed by accidents every 6 minutes). Tables 1 and 2 present these traffic accident statistics.

**Table 1**—Statistics of Traffic Accidents in Shanghai from 1994 to 1998

Year	Number of Accidents	Number of Injured	Number of Deaths
1994	18,475	10,059	1,514
1995	20,074	9,500	1,164
1996	8,736	8,991	947
1997	7,621	4,699	607
1998	7,524	4,450	594
Total	62,430	37,699	4,826

**Table 2**—Statistics of Traffic Accidents in China from 1994 to 1998

Year	Number of Accidents	Number of Injured	Number of Deaths
1994	298,147	187,399	53,439
1995	276,071	170,598	54,814
1996	258,030	159,002	50,441
1997	250,297	155,072	49,271
1998	264,817	162,019	53,292
Total	1,347,362	834,090	261,257

From the above traffic accidents, the following characteristics can be identified:

1. Of all the persons killed in traffic accidents, 85% are below the average of 40 years of age
2. Prehospital mortality rate from traffic accidents was 66%
3. 60% of traffic accidents are related to bicyclists

Improvement of prehospital first aid and emergency facilities has decreased the rate of mortality and injuries by traffic accidents in recent years. The Shanghai First Aid Central Station (SFACS) possesses 173 ambulances and is staffed by 517 specialists. The facilities of the new resuscitation ambulances, called a "Movable ICU", consists of a cardiopulmonary monitor, ventilator, emergency drugs, and other resuscitative equipment. The ambulance also has an excellent communication device that can connect with any part of the communication network in Shanghai City. Altogether, 110,889 persons requiring first aid were transported by SFACS in 1996. The number of the wounded by traffic accidents and other disasters (e.g., burn accidents,

intoxication, drowning, etc.) was 26,681 with 318 persons found dead before hospitalization.

All severe trauma patients should be transported to the identified hospital in Shanghai. Every central hospital in Shanghai carries out the actions to set up a resuscitative department so as to accept masses of critically wounded casualties in time based on the conditions of the disaster. The functions of a resuscitative department are to sort all of the critically wounded from ordinary ones, resuscitate them, and render all supportive treatments required. Their functions include cardiopulmonary resuscitation, immediate treatment of life threatening respiratory failure, organ injuries, and stopping the loss of blood. Initial management of fractures and injuries from these disasters should be referred to the orthopedic department.

**Key words:** accidents; ambulances; deaths; hospitals; injuries; resuscitation; staff; traffic; trauma; treatment  
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### Computer-aided Patient Management on the Field: A New Facet of French School for Disaster Medicine

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In recent years, network technology has made much progress. It has provided us with an easier management of our patients at the disaster scene. This work highlights French rescue organisation and led to the creation of an application program that provides a real management scenario. Above all, it provides effective information in real time for all of the contributors to a rescue plan. The design stage (hardware and software) of the project is completed. Trials are scheduled for May or June 2001 during disasters exercises.

We will present this application program, the product of two years of work. We hope to convince physicians of the great potential of these new network technologies for their practise.

**Key words:** computer assistance; field; management; networks; patients; technology

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### First Aid for Gunshot Wounds in High Altitude Areas

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*Introduction:* We will discuss special prehospital treatment of the mass numbers of victims of firearms that had not been considered previously. Since 1990, we have attended to the research work of gunshot wounds in such area as Xi Zang, where the plateau is about 4,000 meters (13,123 feet) above sea level (mean atmospheric pressure = 463